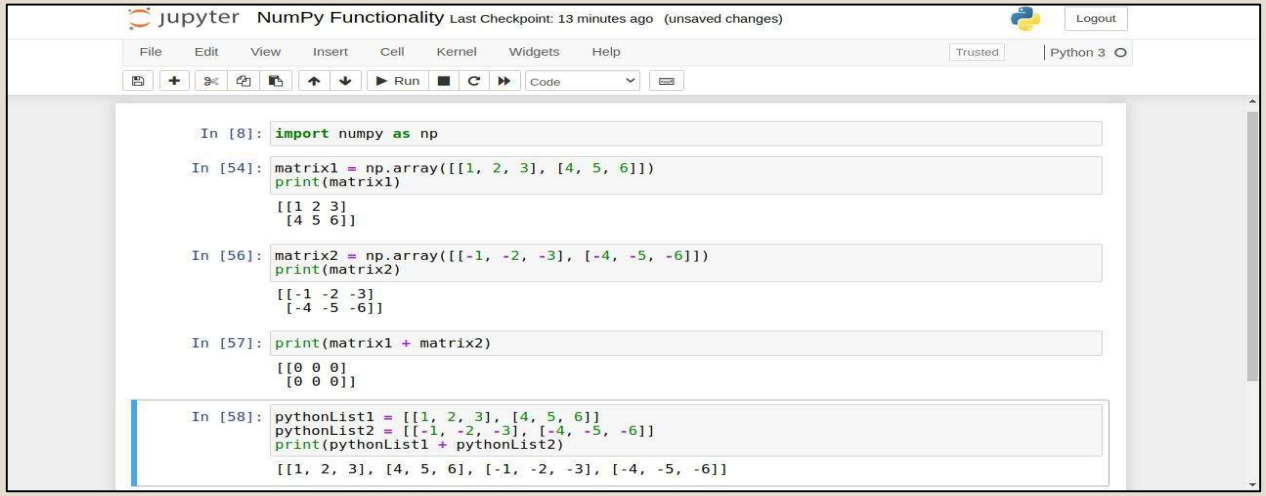
Element-wise Operations

Addition

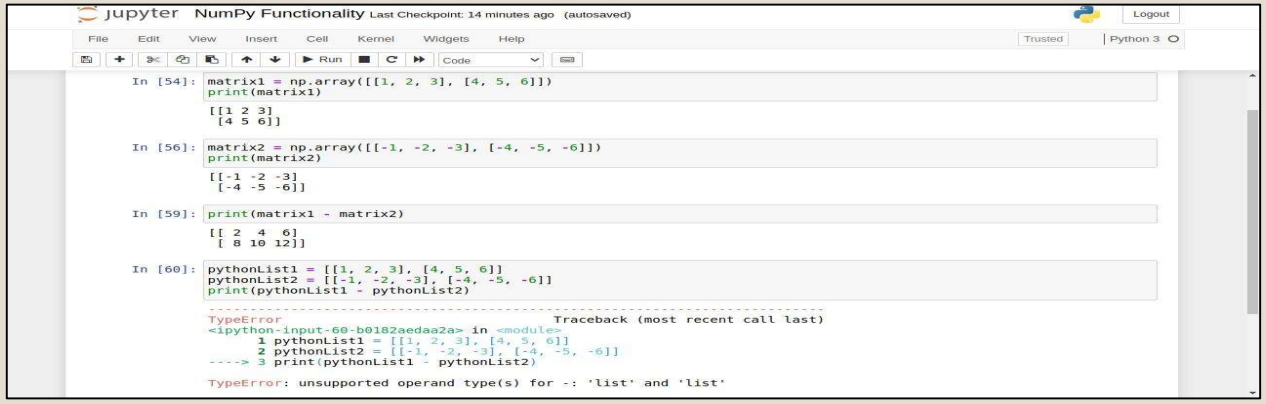
- We can add the elements of two NumPy arrays simply by using (+) operator.
- Each element of the first array is added to the corresponding element of the second array.
- Note that adding two Python lists using plus (+) operator is not possible. Instead the lists are concatenated if we use (+) operator.



Element-wise Operations

Subtraction

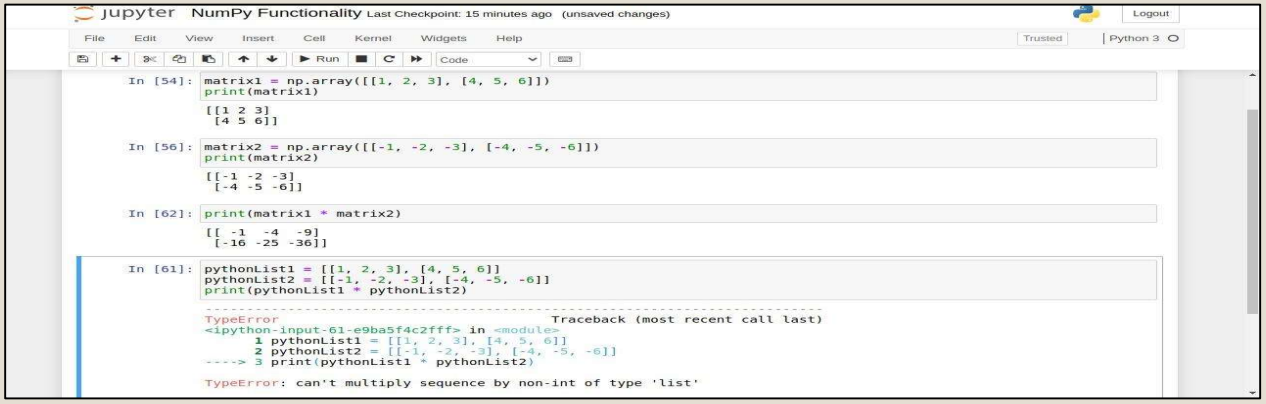
- We can subtract the elements of two NumPy arrays simply by using (-) operator.
- Each element of the second array is subtracted from the corresponding element of the first array.
- Note that subtracting the elements of two Python lists using (-) operator will result in an error.



Element-wise Operations

Multiplication

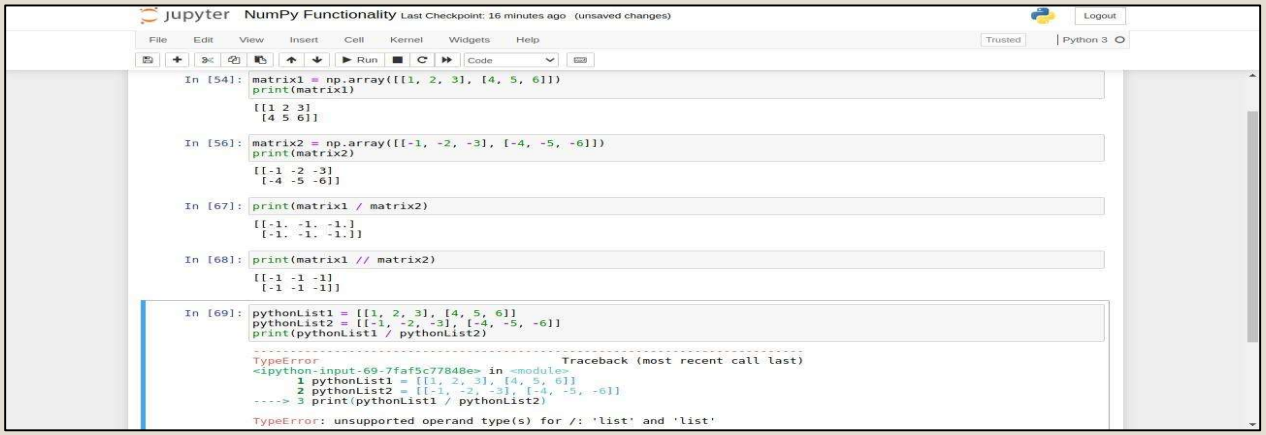
- We can multiply the elements of two NumPy arrays simply by using (*) operator.
- Each element of the first array is multiplied by the corresponding element of the second array.
- Note that multiplying the elements of two Python lists using (*) operator will result in an error.



Element-wise Operations

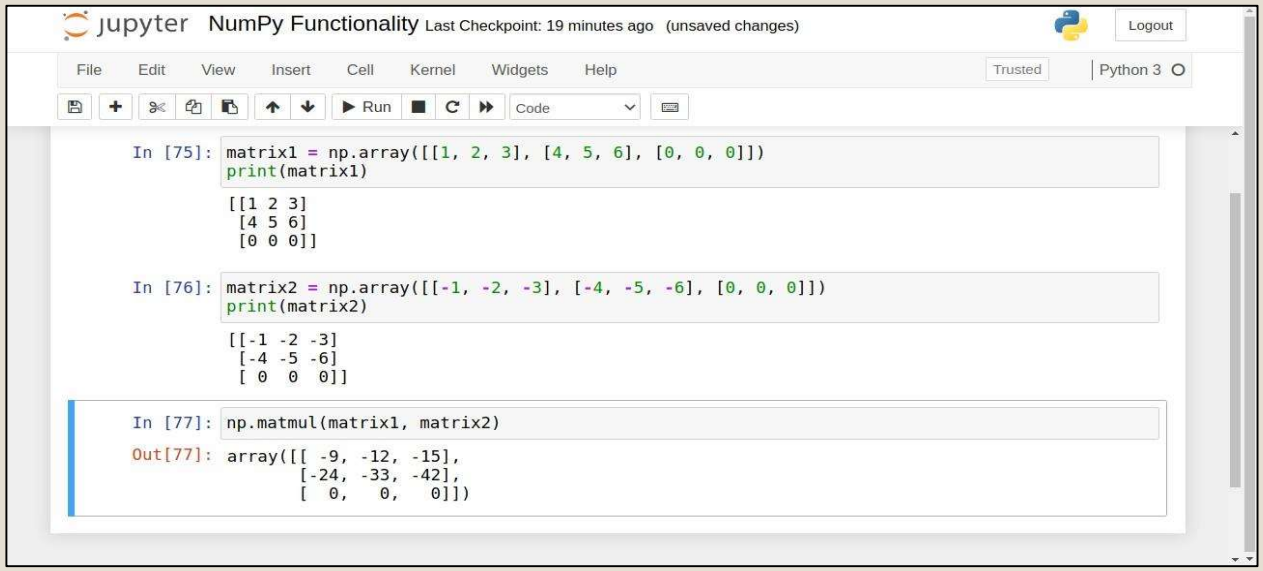
Division

- We can divide the elements of two NumPy arrays simply by using (/) operator.
- Each element of the first array is divided by the corresponding element of the second array.
- Note that dividing the elements of two Python lists using (/) operator will result in an error.



Matrix Multiplication

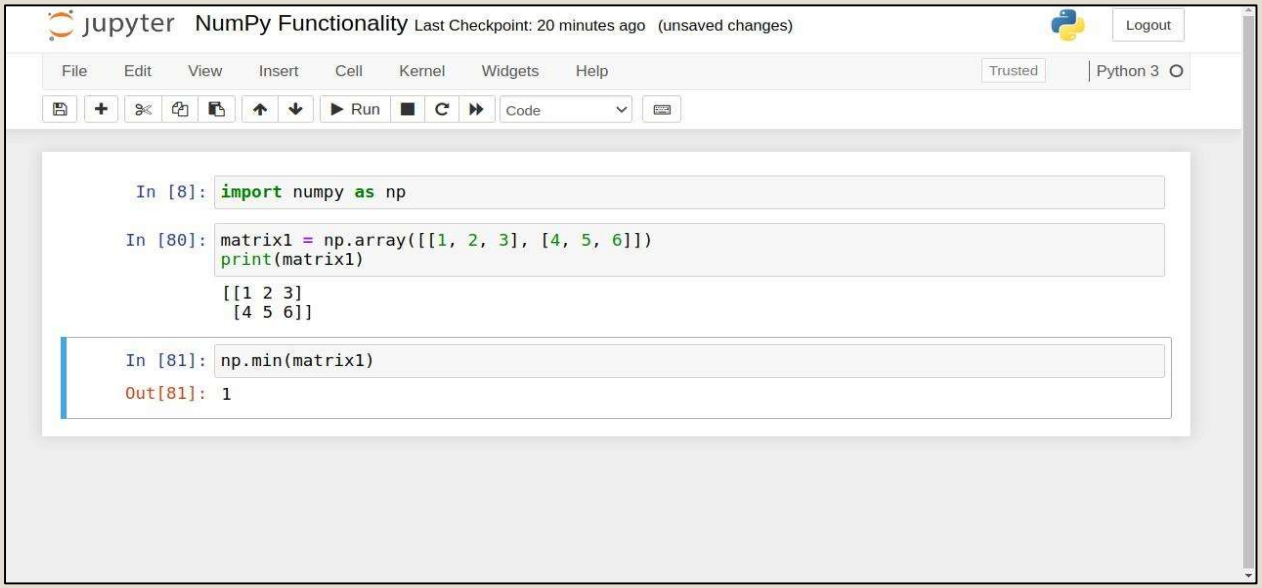
- Apart from elementwise multiplication, NumPy also provides us with a built-in function to compute the matrix multiplication of two arrays.
- We use the .matmul() function inside the NumPy library for matrix multiplication of two arrays.



Statistics

.min()

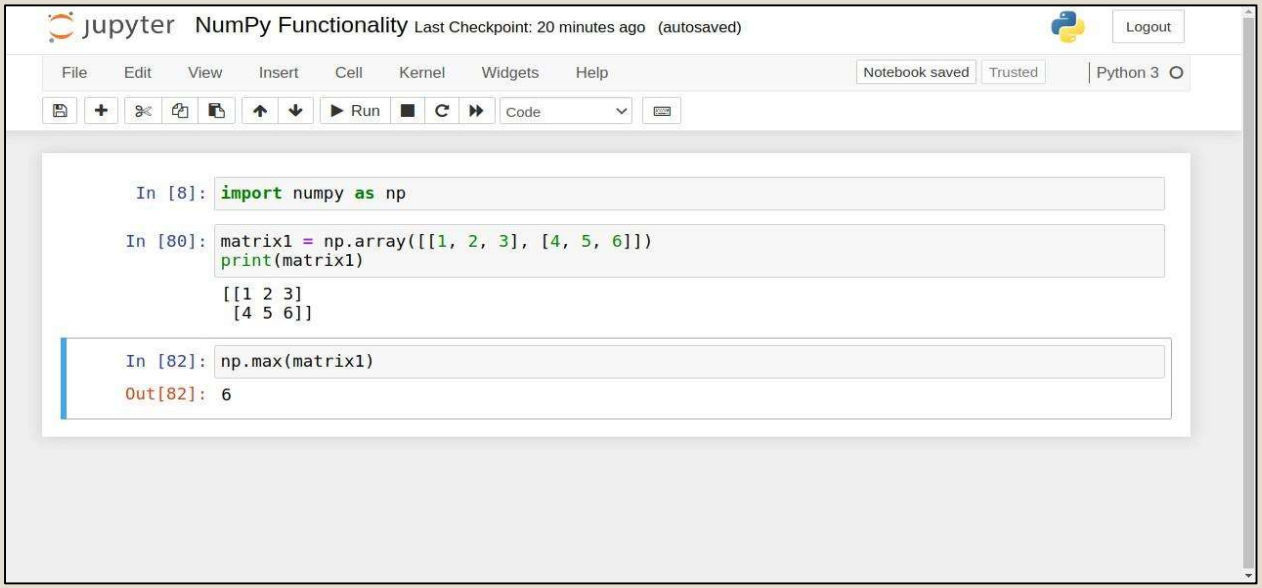
- .min() function gives us the minimum value in a NumPy array.
- This function can also be applied on Python lists.



Statistics

.max()

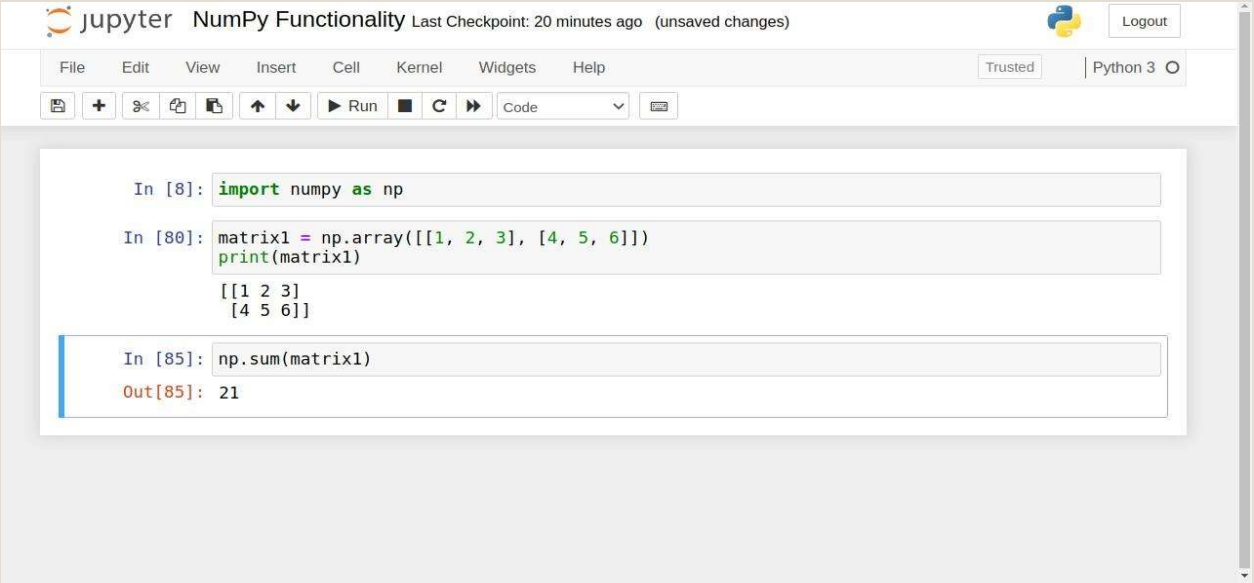
- .max() function gives us the maximum value in a NumPy array.
- This function can also be applied on Python lists.



Statistics

.sum()

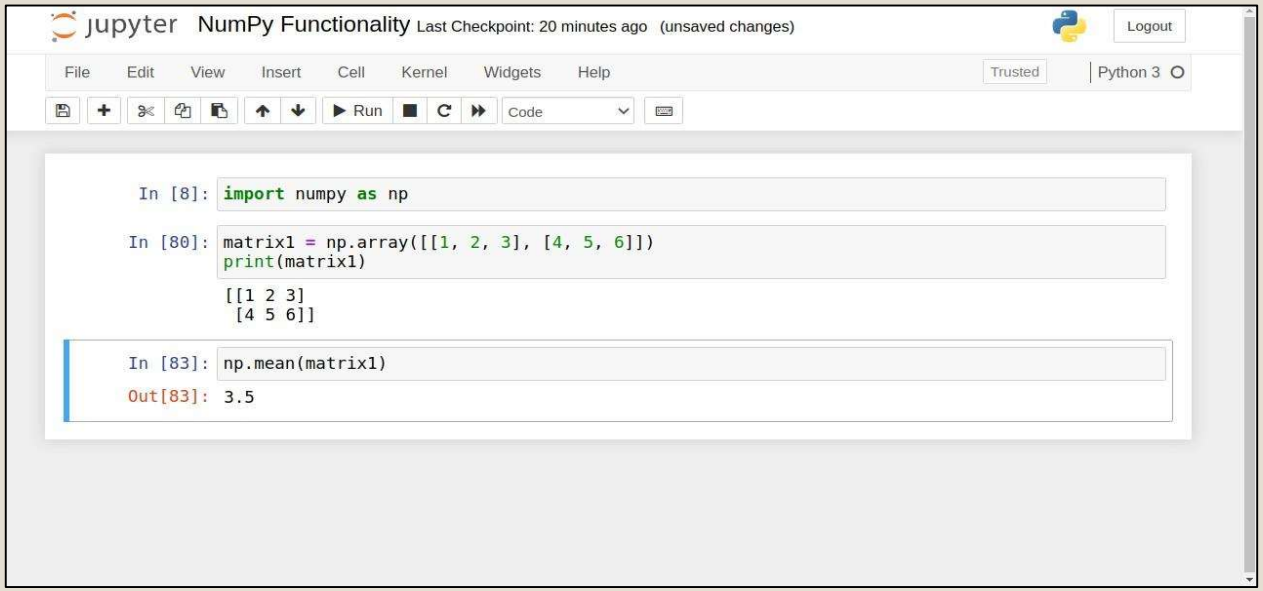
- .sum() function gives us the sum of all the values in a NumPy array.
- This function can also be applied on Python lists.



Statistics

.mean()

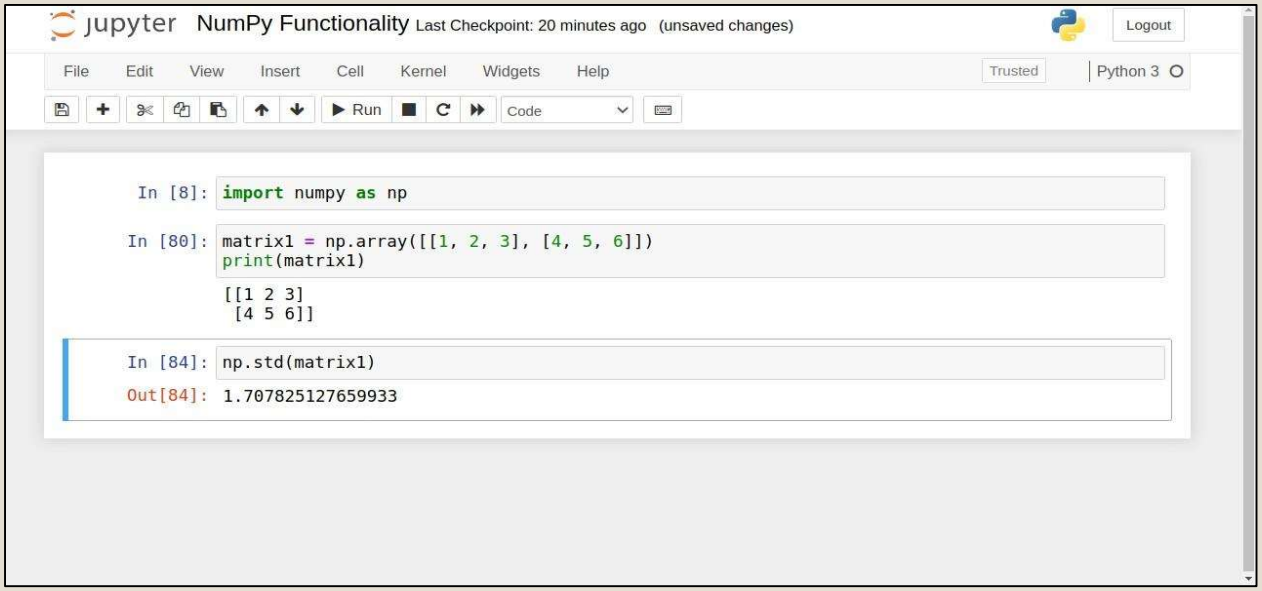
- .mean() function gives us the mean of all the values in a NumPy array.
- This function can also be applied on Python lists.



Statistics

.std()

- .std() function gives us the standard deviation of a NumPy array.
- This function can also be applied on Python lists.



Statistics

.median()

- .median() function gives us the median of a NumPy array.
- This function can also be applied on Python lists.